

Notice of Allowability

Application No.

10/792,089

Examiner

Xiuqin Sun

Applicant(s)

WILSON, BRUCE A.

Art Unit

2863

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to 05/06/2005.
2. ☒ The allowed claim(s) is/are 1-18,27-42 and 60-66.
3. ☒ The drawings filed on 02 March 2004 are accepted by the Examiner.
4. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some* c) ☐ None of the:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.
THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

5. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
6. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
- (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
- 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
- (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
7. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☒ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☒ Information Disclosure Statements (PTO-1449 or PTO/SB/08),
Paper No./Mail Date 03/08/2004
4. ☐ Examiner's Comment Regarding Requirement for Deposit
of Biological Material
5. ☐ Notice of Informal Patent Application (PTO-152)
6. ☐ Interview Summary (PTO-413),
Paper No./Mail Date _____.
7. ☒ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other _____.

DETAILED ACTION

EXAMINER'S AMENDMENT

1. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it **MUST** be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with attorney David Bowis, Tel. #: (949)788-9961 on 06/22/2005.

The application has been amended as follows:

Clams 19-26, 43-59 and 67-70 were cancelled.

Allowable Subject Matter

2. Claims 1-18, 27-42 and 60-66 are allowed.

Reasons for Allowance

3. The following is an examiner's statement of reasons for allowance:

The primary reason for the allowance of claims 1-9, 35-42 and 60-66 is the inclusion of the limitations of: organizing each of said relations into a single association; organizing the location of each of said plurality of manufactured internal features relative to said single association; determining said positional error for each of said

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manufactured internal features from said single association; determining a common region contained within said organized plurality of manufactured internal features; determining a maximum inscribed circle within said region; determining the diameter of said maximum inscribed circle; determining the center location of said maximum inscribed circle; determining the transformation of the center location of said maximum inscribed circle from said single association; and determining said remaining feature related tolerance from said maximum inscribed circle. It is these limitations found in each of the claims, as they are claimed in the combination that have not been found, taught or suggested by the prior art of record, which make these claims allowable over the prior art.

The primary reason for the allowance of claims 10-18 is the inclusion of the limitations of: superimposing each of said transformed true positions to form a one true position; determining the location of each of said plurality of manufactured holes relative to said one true position; determining a common region contained within said manufactured holes represented about said one true position; determining a first Maximum inscribed circle within said common region; determining the diameter of said first maximum inscribed circle; determining a center location of said first maximum inscribed circle; and determining said remaining hole related tolerance from said maximum inscribed circle. It is these limitations found in each of the claims, as they are claimed in the combination that have not been found, taught or suggested by the prior art of record, which make these claims allowable over the prior art.

The primary reason for the allowance of claims 27-34 is the inclusion of the limitations of: determining a common region contained within said manufactured holes represented about said one true position; determining a first maximum inscribed circle within said common region; determining the center of said first maximum inscribed circle; and determining the location of said center of said first maximum inscribed circle relative to said one true position. It is these limitations found in each of the claims, as they are claimed in the combination that have not been found, taught or suggested by the prior art of record, which make these claims allowable over the prior art.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Prior Art Citations

4. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

1) Beeson et al. (U. S. Pat. No. 4754417) is entitled "Computer implemented go/no go gauging system".

2) Beebe et al. (U. S. Pat. No. 5151870) is entitled "Apparatus and method for determining a center and measuring with reference thereto".

3) Arimura (U. S. Pat. No. 4390955) is entitled "position detecting system".

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4) Tandler (U. S. Pat. No. 6507806) is entitled "Computer aided design (CAD) system for automatically constructing datum reference frame (DRF) and feature control frame (FCF) for machine part".


5) Hurt (U. S. Pat. No. 4296474) is entitled "Inspection system and apparatus therefore".

Contact Information

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Xiuqin Sun whose telephone number is (571)272-2280. The examiner can normally be reached on 6:30am-4:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John Barlow can be reached on (571)272-2269. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


MICHAEL NGHIEM
PRIMARY EXAMINER

Xiuqin Sun
Examiner
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XS

June 28, 2005

A handwritten signature in black ink, appearing to be 'XS' or similar, written over the printed text.